

REMARKS

Summary of the Amendment

Upon entry of the present Amendment, Claims 1, 4, 21, 24 and 26 will have been amended; Claims 2-3, 5-6, 16, 22-23 and 27 will have been cancelled without prejudice or disclaimer; new Claims 28-30 will have been added; and paragraph [0002] of the specification will have been amended. Accordingly, Claims 1, 4, 7-15, 17-21, 24-26 and 28-30 remain pending in the present application.

By the present Amendment and Remarks, applicant submits that the rejections have been overcome, and fully requests reconsideration of the Office Action and allowance of the present application.

Summary of the Official Office Action

In the subject Office Action, Claims 1, 4, 7-9, 12-13, 17-18, 21 and 24-25 are rejected under 35 U.S.C. §102(b) as being clearly anticipated over the art of record; and Claims 10-12, 14-15, 19-20 and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over the art of record. Since Claims 2-3, 5-6, 16, 22-23 and 27 have been cancelled without prejudice or disclaimer, the rejections with respect to the aforementioned cancelled claims are now rendered moot, and therefore, will not be addressed in this Response.

Submission of Formal Drawings

Submitted in a separate paper filed concurrently herewith this Response, are three (3) sheets of formal drawings, including Figures 1(a) and 1(b); Figure 2; Figure 3; Figures 4(a) and 4(b); and Figure 5. Applicant respectfully requests the Examiner to indicate approval of the formalized drawings in the next Office Action.

Traversal of Rejection under 35 U.S.C. §102(b)

In re FRANSSON

Applicant respectfully traverses the rejection of Claims 1, 7-9, 12-13, 17-18, 21 and 24-25 under 35 U.S.C. § 102(b) as being clearly anticipated by U.S. Patent No. 6,619,178 B1 to Fransson et al. [hereinafter "FRANSSON"].

The Examiner submits that FRANNSON is a § 102(b) reference as of the PCT Publication Date 10/12/2000. On the merits, the Examiner submits that FRANSSON "shows conformal countermeasure adapter 2."

A Review of FRANSSON

As shown in Figures 1a and 1b, a dispenser 2 is provided on the top of an aeroplane 1 for storing and launching countermeasures. The dispenser has its longitudinal direction essentially coinciding with a longitudinal direction of the aeroplane 1. As further detailed in Figures 2a and 2b, the dispenser 2 comprises an elongate body 8 with a front part 9 and a rear part 10. Between the front part 9 and the rear part 10 there is a compartment section 11, intended to accommodate countermeasures in the form of preferably flares or chaff. The countermeasures are preferably accommodated in cartridges which can be of a type known in this field.

Independent Claim 1 (and Dependent Claims 7-9, 12-13, 17-18)

Applicant's independent Claim 1 as amended recites, *inter alia*, ***an electronic infrared countermeasures system (IRCM) configured for directing an infrared laser source at an attacking missile to confuse the missile's guidance system;*** wherein the system is configured to operate autonomously independent of crew interaction, requiring only a power source from the aircraft.

On the other hand, FRANNSON teaches a countermeasures system; however, the FRANNSON countermeasures system ejects materials such as flares or chaff from the dispenser, instead of utilizing an electronic infrared countermeasures system as is taught in

independent Claim 1. In other words, the FRANNSON countermeasures system is a passive system, as compared the electronic infrared countermeasures system provided in the present invention recited in Claim 1. Moreover, FRANNSON does not explicitly teach the countermeasures system being configured to operate autonomously independent of crew interaction, requiring only a power source from the aircraft, as is recited in Claim 1.

Because FRANNSON fails to disclose the above-noted features of the present invention, Applicant submits that FRANNSON fails to disclose each and every feature of the present invention, as recited in independent Claim 1.

Accordingly, Applicant submits that the Examiner has failed to provide an adequate evidentiary basis to support a rejection under 35 U.S.C. § 102(b) and that the rejection of Claim 1 is improper and should be withdrawn.

Applicant further submits that dependent Claims 7-9, 12-13, 17-18 are allowable at least for the reason that these claims depend from allowable independent Claim 1 and because these claims recite additional features that further define the present invention.

Accordingly, Applicant submits that the Examiner has failed to provide an adequate evidentiary basis to support a rejection under 35 U.S.C. § 102(b) and that the rejection of Claims 7-9, 12-13, 17-18 is improper and should be withdrawn.

Independent Claim 21

Applicant's independent Claim 21 as amended recites, *inter alia*, a method for fitting a commercial aircraft with a self-contained and standalone conformal airliner defense (CAD) system, the system comprising ***an electronic infrared countermeasures system (IRCM) for directing an infrared laser source at an attacking missile to confuse the missile's guidance system***, . . . , the method comprising performing a diagnostic check-out of the countermeasures system prior to installation onto the aircraft, wherein the diagnostic check-out is performed independently of the aircraft;

On the other hand, as already discussed, FRANNSON teaches a countermeasures system; however, the FRANNSON countermeasures system ejects materials such as flares or chaff from the dispenser, instead of utilizing an electronic infrared countermeasures system configured for directing an infrared laser source at an attacking missile to confuse the

missile's guidance system as is taught in independent Claim 1. In other words, the FRANNSON countermeasures system is a passive system, as compared the electronic infrared countermeasures system provided in the present invention recited in Claim 21. Moreover, FRANNSON does not explicitly teach performing a diagnostic check-out of the countermeasures system prior to installation onto the aircraft, wherein the diagnostic check-out is performed independently of the aircraft, as is recited in Claim 21.

Because FRANNSON fails to disclose the above-noted features of the present invention, Applicant submits that FRANNSON fails to disclose each and every feature of the present invention, as recited in independent Claim 21.

Accordingly, Applicant submits that the Examiner has failed to provide an adequate evidentiary basis to support a rejection under 35 U.S.C. § 102(b) and that the rejection of Claim 21 is improper and should be withdrawn.

Independent Claim 24 (and Dependent Claim 25)

Applicant's independent Claim 24 as amended recites, inter alia, ***a self-contained and standalone conformal external mounting system for housing an electronic infrared countermeasures (IRCM) system for directing an infrared laser source at an attacking missile to confuse the missile's guidance system***, . . . said conformal mounting system comprising a conformal mounting adapter configured to be attached to the exterior surface an aircraft; [and] a mounting structure configured to be fastened to said conformal mounting adapter and configured to receive an electronic infrared countermeasures system; . .

On the other hand, the FRANNSON dispenser 2 is certainly not adapted to house an electronic infrared countermeasures (IRCM) system for directing an infrared laser source at an attacking missile to confuse the missile's guidance system. Rather the FRANNSON dispenser 2 is adapted to house components not found in IRCM type systems. For instance the FRANNSON dispenser 2, as best illustrated in Figures 2a-b, provides a number of compartments 11.1, 11.2, . . . 11.n intended to accommodate flares or chaff, preferably in the form of cartridges. Hence, FRANNSON does not teach a dispenser which is adapted for housing an electronic infrared countermeasures (IRCM) system for directing an

infrared laser source at an attacking missile to confuse the missile's guidance system, as is recited in independent Claim 24.

And additionally, FRANNSON does not explicitly teach a conformal mounting system comprising *a conformal mounting adapter* configured to be attached to the exterior surface an aircraft; [and] *a mounting structure* configured to be fastened to said conformal mounting adapter and configured to receive an electronic infrared countermeasures system, as is recited in independent Claim 24. For instance, FRANNSON Figures 2a-b show the FRANNSON dispenser 2, but not to the detailed level of which the Applicant recites and claims in Claim 24. Therefore, even though the FRANNSON reference does show a dispenser 2, FRANNSON does not explicitly teach a *conformal adapter* in combination with a *mounting structure* as is recited independent Claim 24

Because FRANNSON fails to disclose the above-noted features of the present invention, Applicant submits that FRANNSON fails to disclose each and every feature of the present invention, as recited in independent Claim 24.

Accordingly, Applicant submits that the Examiner has failed to provide an adequate evidentiary basis to support a rejection under 35 U.S.C. § 102(b) and that the rejection of independent Claim 24 is improper and should be withdrawn.

Applicant further submits that dependent Claim 25 is allowable at least for the reason that this claim depends from allowable independent Claim 24 and because Claim 25 recites additional features that further define the present invention.

Accordingly, Applicant submits that the Examiner has failed to provide an adequate evidentiary basis to support a rejection under 35 U.S.C. § 102(b) and that the rejection of dependent Claim 25 is improper and should be withdrawn.

In re HANES

Applicant respectfully traverses the rejection of Claims 1, 7-9, 12-13, 17-18, 21 and 24-25 under 35 U.S.C. §102(b) as being clearly anticipated by U.S. Patent No. 4,421,007 to Hanes, Jr. [hereinafter "HANES"]. The Examiner submits that HANES "shows the conformal countermeasure adapter 18."

A Review of HANES

Figure 2 of HANES depicts a dispenser 18 of an air bomb system 12. The dispenser 18 is made of any suitable lightweight material such as aluminum and is shaped on the exterior to conform to the body of aircraft 10 and aerodynamically to reduce drag. Dispenser is detachably mounted by conventional means such as rails or the like to the underside of aircraft 10 so that the unit is easily removed for maintenance and testing. A cable 20 electrically connects dispenser 18 to a computer 11. Figure 3 shows a bottom view of the dispenser 18 which includes two bomb tubes 26 and 28, a pneumatic pressure system 30 and an electronic control section 32. Each tube 26 and 28 holds a plurality of bombs 52, such as five in number. Upon a firing command, pressure system 30 ejects bomb 52 from a propulsion chamber 36, shown in Figures 3 and 5, at the rear end of tubes 26 and 28. Each tube 26 and 28 has a bomb magazine 46 capable of holding a plurality of bombs 52, and the propulsion chamber 36.

Independent Claim 1 (and Dependent Claims 7-9, 12-13, 17-18)

Applicant's independent Claim 1 as amended recites, *inter alia*, ***an electronic infrared countermeasures system (IRCM) configured for directing an infrared laser source at an attacking missile to confuse the missile's guidance system; wherein the system is configured to operate autonomously independent of crew interaction, requiring only a power source from the aircraft.***

On the other hand, HANES teaches a countermeasures system; however, the HANES countermeasures system ejects bombs 52 from dispenser 18, instead of utilizing an electronic infrared countermeasures system configured for directing an infrared laser source at an attacking missile to confuse the missile's guidance system as is taught in independent Claim 1. In other words, the HANES countermeasures system is a passive system, as compared the electronic infrared countermeasures system provided in the present invention recited in Claim 1. Moreover, the HANES countermeasure system is not configured to operate autonomously independent of crew interaction, requiring only a power source from the aircraft, as is recited in Claim 1. Instead, as is discussed in the HANES specification (col.

5, lines 5-41) and clearly shown in Figure 8, the HANES system requires a control panel 68 which is located in the cockpit of the aircraft.

Because HANES fails to disclose the above-noted features of the present invention, Applicant submits that HANES fails to disclose each and every feature of the present invention, as recited in independent Claim 1.

Accordingly, Applicant submits that the Examiner has failed to provide an adequate evidentiary basis to support a rejection under 35 U.S.C. § 102(b) and that the rejection of Claim 1 is improper and should be withdrawn.

Applicant further submits that dependent Claims 7-9, 12-13, 17-18 are allowable at least for the reason that these claims depend from allowable independent Claim 1 and because these claims recite additional features that further define the present invention.

Accordingly, Applicant submits that the Examiner has failed to provide an adequate evidentiary basis to support a rejection under 35 U.S.C. § 102(b) and that the rejection of Claims 7-9, 12-13, 17-18 is improper and should be withdrawn.

Independent Claim 21

Applicant's independent Claim 21 as amended recites, *inter alia*, a method for fitting a commercial aircraft with a self-contained and standalone conformal airliner defense (CAD) system, the system comprising ***an electronic infrared countermeasures system (IRCM) for directing an infrared laser source at an attacking missile to confuse the missile's guidance system***, . . . , the method comprising performing a diagnostic check-out of the countermeasures system prior to installation onto the aircraft, wherein the diagnostic check-out is performed independently of the aircraft;

On the other hand, as already discussed, HANES teaches a countermeasures system; however, the HANES countermeasures system ejects bombs 52 from a dispenser 18, instead of utilizing an electronic infrared countermeasures system configured for directing an infrared laser source at an attacking missile to confuse the missile's guidance system as is recited in independent Claim 21. In other words, the HANES countermeasures system is a passive system, as compared the electronic infrared countermeasures system provided in the present invention recited in Claim 21. Moreover, HANES does not explicitly teach

performing a diagnostic check-out of the countermeasures system prior to installation onto the aircraft, wherein the diagnostic check-out is performed independently of the aircraft, as is recited in Claim 21.

Because HANES fails to disclose the above-noted features of the present invention, Applicant submits that FRANNSON fails to disclose each and every feature of the present invention, as recited in independent Claim 21.

Accordingly, Applicant submits that the Examiner has failed to provide an adequate evidentiary basis to support a rejection under 35 U.S.C. § 102(b) and that the rejection of Claim 21 is improper and should be withdrawn.

Independent Claim 24 (and Dependent Claim 25)

Applicant's independent Claim 24 as amended recites, inter alia, ***a self-contained and standalone conformal external mounting system for housing an electronic infrared countermeasures (IRCM) system for directing an infrared laser source at an attacking missile to confuse the missile's guidance system***, said conformal mounting system comprising a conformal mounting adapter configured to be attached to the exterior surface an aircraft; [and] a mounting structure configured to be fastened to said conformal mounting adapter and configured to receive an electronic infrared countermeasures system; . .

On the other hand, as already discussed, even if the HANES dispenser 18 can be construed as being a conformal externally mounted system, the HANES dispenser 18 is certainly not adapted to house an electronic infrared countermeasures (IRCM) system for directing an infrared laser source at an attacking missile to confuse the missile's guidance system. Rather the HANES dispenser 18 is adapted to house components not found in IRCM type systems. For instance the HANES dispenser 18 utilizes bomb magazines, propulsion chambers and bomb tubes, all of which are features indicative of a passive countermeasures. Hence, HANES does not teach a dispenser which is adapted for housing an electronic infrared countermeasures (IRCM) system for directing an infrared laser source at an attacking missile to confuse the missile's guidance system, as is recited in independent Claim 24.

Moreover, the HANES countermeasure system is not configured to self-contained and standalone since the HANES system requires crew interaction. As discussed in the HANES specification (col. 5, lines 5-41) and clearly shown in Figure 8, the HANES system requires a control panel 68 which is located in the cockpit of the aircraft. Thus, the HANES countermeasure system should not be considered a standalone system as is the present invention.

And additionally, HANES does not explicitly teach a conformal mounting system comprising a *conformal mounting adapter* configured to be attached to the exterior surface of an aircraft; [and] a *mounting structure* configured to be fastened to said conformal mounting adapter and configured to receive an electronic infrared countermeasures system, as is recited in independent Claim 24. For instance, HANES Figures 2-4 show the HANES dispenser 18, but not to the detailed level of which the Applicant recites and claims in Claim 24. Therefore, even though the HANES reference does show a dispenser 18, HANES does not explicitly teach a *conformal adapter* in combination with a *mounting structure* as is recited in independent Claim 24.

Because HANES fails to disclose the above-noted features of the present invention, Applicant submits that HANES fails to disclose each and every feature of the present invention, as recited in independent Claim 24.

Accordingly, Applicant submits that the Examiner has failed to provide an adequate evidentiary basis to support a rejection under 35 U.S.C. § 102(b) and that the rejection of independent Claim 24 is improper and should be withdrawn.

Applicant further submits that dependent Claim 25 is allowable at least for the reason that this claim depends from allowable independent Claim 24 and because Claim 25 recites additional features that further define the present invention.

Accordingly, Applicant submits that the Examiner has failed to provide an adequate evidentiary basis to support a rejection under 35 U.S.C. § 102(b) and that the rejection of dependent Claim 25 is improper and should be withdrawn.

Traversal of Rejection under 35 U.S.C. §103(a)

HANES or FRANSSON in view of HIBMA

Applicant respectfully traverses the rejection of Claim 26 under 35 U.S.C. § 103(a) as being unpatentable over HANES or FRANSSON in view of U.S. Patent No. 6,231,002 to Hibma et al. [hereinafter "HIBMA"].

The Examiner submits that it would have been obvious to one of ordinary skill in the art of the time the invention was made to make the countermeasure means of HANES or FRANSSON as stand alone unit as taught by HIBMA. The Examiner also submits that the use of diagnostic testing in a computer system is obvious and well-known.

A Review of HIBMA

HIBMA discloses a method and system for defending a vehicle which involves deployment of a body from the vehicle which can either serve as decoy, by diverting an approaching threat, and/or serve as a kinetic kill device by positioning itself to collide with the threat. As shown in Figure 1, once a threat 12 has been detected, the KV 14 will be launched from the aircraft 10. Figure 2 provides a perspective view of the KV 14, which includes divert thrusters 18, attitude control thrusters 20, and a seeker 22. Prior to launch the KV 14 is secured within a launcher 28 as is shown in Figure 3. The launcher 28 is preferably located at an aft portion of the aircraft 10.

The 103(a) modification of HANES or FRANSSON in view of HIBMA is vague and over generalized.

As best understood, the Examiner modifies HANES or FRANSSON with a purported "standalone" teaching from HIBMA. The Examiner also submits that the use of diagnostic testing in a computer system is obvious and well-known.

Applicant respectfully submits that the manner in which the Examiner has modified HANES or FRANSSON in view of HIBMA is in error because it is merely providing at best a very generalized and non-specific modification which is not sufficiently applied.

Independent Claim 26

Applicant's independent Claim 26 as amended recites, *inter alia*, an aircraft in combination with ***a self-contained and standalone conformal airliner defense system*** (CAD) attached as an appendage to an exterior surface of said aircraft, said CAD system comprising: a conformal mounting adapter attached to said exterior surface of said aircraft; a mounting structure attached to an upper surface of said mounting adapter; an electronic infrared countermeasures system (IRCM) mounted onto said support structure, ***said infrared countermeasures system configured for directing an infrared laser source at an attacking missile to confuse the missile's guidance system***; . . . wherein said countermeasures system is substantially self-contained, standalone and completely operable independent of pilot input and control, requiring only a power source from said aircraft's power supply.

It has already been shown that neither HANES nor FRANNSON teach an electronic infrared countermeasures system for directing an infrared laser source at an attacking missile to confuse the missile's guidance system, as is recited in independent Claims 1, 21 and 26. Moreover, although HIBMA teaches a countermeasure system in general, the HIBMA system is once again considered a passive system which ejects a "Killer Volleyball" KV 14 which is intended to collide with an incoming missile and destroy the missile by a kinetic impact and/or collision.

The Applicant does note that even though HIBMA does suggest modifying the KV 14 such that it produces a high IR signature while flying away from the host (see Col. 10, lines 9-14), this concept teaches towards the concept used with flairs, I.E., producing a very high IR signature which acts as a decoy that attracts the missile to the KV 14, instead of the IR signature of the aircraft. *This suggestion teaches away from the IRCM type of system which directs an infrared laser source at an attacking missile to confuse the missile's guidance system.* Therefore, the HIBMA reference does not teach an electronic infrared countermeasures system for directing an infrared laser source at an attacking missile to confuse the missile's guidance system. As a result, HIBMA does not remedy the deficiencies in the HANES and FRANNSON references.

Therefore, even if the Examiner's proposed modification is even possible, at best the end result would be "standalone" countermeasures systems which *is not an electronic infrared countermeasures systems*. Therefore, the invention recited in independent Claim 26 does not even result.

Additionally, neither FRANNSON, HANES or HIBMA, whether considered individually or in combination, explicitly teach a *conformal mounting adapter* attached to said exterior surface of said aircraft; a *mounting structure* attached to an upper surface of said mounting adapter; and an *electronic infrared countermeasures system (IRCM)* mounted onto said support structure. For instance, FRANNSON shows details of its dispenser 2 in Figures 2a-b; however, not to the detailed level of which the Applicant recites and claims in independent Claim 26. As already discussed, HANES Figures 2-4 show the HANES dispenser 18, but not to the detailed level of which the Applicant recites and claims in Claim 24. And finally, the HIBMA countermeasures system does not even resemble or even come close to teaching a *conformal adapter* in combination with a *mounting structure*. Therefore, even though the FRANNSON, HANES and HIBMA references show countermeasures dispensers, FRANNSON, HANES and HIBMA do not explicitly teach, *inter alia*, a *conformal mounting adapter* attached to said exterior surface of said aircraft; a *mounting structure* attached to an upper surface of said mounting adapter; and an *electronic infrared countermeasures system (IRCM)* mounted onto said support structure, as is recited in independent Claim 26.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the rejection of independent Claim 26 under § 103(a) and indicate that this claim is allowable.

HANES or FRANSSON in view of WARM

Applicant respectfully traverses the rejection of Claims 10-12 and 14-15 under 35 U.S.C. § 103(a) as being unpatentable over HANES or FRANSSON in view of U.S. Patent No. 5,600,434 to Warm et al. [hereinafter "WARM"].

The Examiner submits that it would have been obvious to one of ordinary skill in the art of the time the invention was made to provide the countermeasure device of HANES or FRANSSON with a laser turret as taught by WARM.

A Review of WARM

Figure 2 of WARM discloses a defense apparatus 14 in the form of an autarchically operational system for aircraft 11, for example, integrated in a slender container 17 which has a streamlined shape which can be attached, for example, as a outboard load under the tail or under the wing of an aircraft 11. Behind a ray-transparent dome 18, the container 17 is provided with a tracking optical system 19 which is disposed simultaneously in the beam path of both a target tracking system 20 and also a laser source 21 (see Figure 3). Tracking system 20 may be a simple tracking infrared camera which is oriented by a warning sensor 10 and the direction 22 of the approaching missile 12 which stands out significantly against its surroundings by particularly hot regions, for example, at the wingtips and in particular in front of the dome of its homing head 13. The defense apparatus 14 further includes a power supply 24, tracking electronics 25 and an ECM device 27.

The 103(a) modification of HANES or FRANSSON in view of WARM is vague and over generalized.

Applicant respectfully submits that the manner in which the Examiner has modified HANES or FRANSSON in view of WARM is in error because it is merely providing at best a very generalized and non-specific modification which is not sufficiently applied.

Furthermore, Applicant submits that dependent Claim 10-12 and 14-15 are allowable at least for the reason that these claims depend from allowable independent Claim 1 for the same reasons discussed *supra*.

Moreover, additional reasons why the combination of HANES or FRANSSON in view of WARM is inappropriate are further discussed, *infra*.

Dependent Claim 10

Applicant's dependent Claim 10 recites, *inter alia*, said cover having at least one turret opening adapted to receive a rotating laser turret.

As already stated, the Examiner submits that it would have been obvious to one of ordinary skill in the art of the time the invention was made to provide the countermeasure device of HANES or FRANSSON with a laser turret as taught by WARM.

Applicant respectfully disagrees. Why would one be motivated to provide the countermeasure devices of HANES or FRANSSON with a laser turret as taught by WARM, when HANES or FRANSSON disclose countermeasure systems which are not, *inter alia*, . . . ***an electronic infrared countermeasures system*** . . . as is recited in independent Claim 1. There is absolutely no motivation to provide HANES (a flare or chaff dispenser) or FRANSSON (a bomb dispenser) with a laser turret, since the systems do not implement an electronic infrared countermeasures system.

Accordingly, Applicant submits that since the Examiner has failed to provide the requisite motivation or rationale for combining WARM with HANES or FRANSSON, the aforementioned rejection of dependent Claim 10 under § 103(a) is improper and should be withdrawn.

Dependent Claim 11

Applicant further submits that dependent Claim 11 is allowable at least for the reason that this claim depends from allowable independent Claim 1 and dependent Claim 10 and because Claim 11 recites additional features that further define the present invention.

Accordingly, for this reason, Applicant requests that the Examiner reconsider and withdraw the rejection of dependent Claim 11 under § 103(a) and indicate that this claim is allowable.

Dependent Claim 12

Applicant's dependent Claim 12 recites, *inter alia*, said cover having at least one infrared transmissive window.

Applicant submits that one would not be motivated to provide the countermeasure devices a HANES or FRANSSON with at least one infrared transmissive window because HANES or FRANSSON disclose countermeasure systems which are not, *inter alia*, . . . ***an electronic infrared countermeasures system*** . . . as is recited in independent Claim 1.

Thus, there is absolutely no motivation to provide HANES (a flare or chaff dispenser) or FRANSSON (a bomb dispenser) with at least one infrared transmissive window, since the systems do not utilize an electronic infrared countermeasures system.

Accordingly, Applicant submits since the Examiner has failed to provide the requisite motivation or rationale for combining WARM with HANES or FRANSSON, the aforementioned rejection of dependent Claim 12 under § 103(a) is improper and should be withdrawn.

Dependent Claim 14

Applicant's dependent Claim 12 recites, *inter alia*, . . . at least one rotating laser turret . . .

Applicant submits that one would not be motivated to provide the countermeasure devices of HANES or FRANSSON with at least one rotating laser turret because HANES or FRANSSON disclose countermeasure systems which are not, *inter alia*, ***an electronic infrared countermeasures system*** as recited in independent Claim 1. There is absolutely no motivation to provide HANES (a flare or chaff dispenser) or FRANSSON (a bomb dispenser) with at least one rotating laser turret, since the systems do not utilize an electronic infrared countermeasures system.

Accordingly, Applicant submits that since the Examiner has failed to provide the requisite motivation or rationale for combining WARM with HANES or FRANSSON, the aforementioned rejection of dependent Claim 14 under § 103(a) is improper and should be withdrawn.

Dependent Claim 15

Applicant's dependent Claim 12 recites, *inter alia*, . . . at least one rotating laser turret mounting structure . . .

Applicant submits that one would not be motivated to provide the countermeasure devices of HANES or FRANSSON with at least one rotating laser turret mounting structure because HANES or FRANSSON disclose countermeasure systems which are not, *inter alia*, ***an electronic infrared countermeasures system*** as recited in independent

Claim 1. Once again, there is absolutely no motivation to provide HANES (a flare or chaff dispenser) or FRANSSON (a bomb dispenser) with at least one rotating laser turret mounting structure, since the systems do not implement an electronic infrared countermeasures system.

Accordingly, Applicant submits since the Examiner has failed to provide the requisite motivation or rationale for combining WARM with HANES or FRANSSON, the aforementioned rejection of dependent Claim 15 under § 103(a) is improper and should be withdrawn.

HANES or FRANSSON in view of WARM and further in view of HIBMA

Applicant respectfully traverses the rejection of Claims 19-20 under 35 U.S.C. §103(a) as being unpatentable over HANES or FRANSSON in view of WARM as above and further in view of HIBMA.

The Examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the countermeasure device of HANES or FRANSSON with a laser turret as taught by WARM. Moreover, the Examiner submits that it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the countermeasure means of HANES or FRANSSON a stand alone unit as taught by HIBMA.

Dependent Claim 19

It has already been shown that neither HANES nor FRANNSON teach *an electronic infrared countermeasures system*, as is recited in independent Claim 1. Therefore, even if the Examiner's proposed modification is even possible, at best the end result would be a "standalone" countermeasures system which is *not an electronic infrared countermeasures systems*. Therefore the invention recited in independent Claim 1 does not even result.

Applicant further submits that dependent Claim 19 is allowable at least for the reason that this claims depends from allowable independent Claim 1 and because Claim 19 recites additional features that further define the present invention.

Accordingly, for this reason alone, Applicant requests that the Examiner reconsider and withdraw the rejection of dependent Claim 19 under § 103(a) and indicate that this claim is allowable.

Moreover, the 103(a) modification of HANES or FRANSSON in view of WARM and further in view of HIBNA is vague and over generalized.

Additionally, Applicant respectfully submits that the manner in which the Examiner has modified HANES or FRANSSON in view of WARM and further in view of HIBNA is in error because it is merely providing at best a very generalized and non-specific modification which truly is not sufficiently applied.

Applicant's dependent Claim 19 recites, *inter alia*, a modulated directed infrared countermeasure source for jamming and disrupting the missile guidance capabilities.

Applicant submits that one would not be motivated to provide the countermeasure devices of HANES or FRANSSON with a modulated directed infrared countermeasure source for jamming and disrupting the missile guidance capabilities because HANES or FRANSSON disclose countermeasure systems which are not, *inter alia*, ***an electronic infrared countermeasures system*** as recited in independent Claim 1. There is absolutely no motivation to provide HANES (a flare or chaff dispenser) or FRANSSON (a bomb dispenser) with a modulated directed infrared countermeasure source for jamming and disrupting the missile guidance capabilities.

Accordingly, Applicant submits since the Examiner has failed to provide the requisite motivation or rationale for combining WARM and HIBNA with HANES or FRANSSON, the aforementioned rejection of dependent Claim 19 under § 103(a) is improper and should be withdrawn.

Dependent Claim 20

Applicant further submits that dependent Claim 20 is allowable at least for the reason that this claims depends from allowable independent Claim 1 and dependent Claim 19 and because Claim 20 recites additional features that further define the present invention.

Accordingly, for this reason alone, Applicant requests that the Examiner reconsider and withdraw the rejection of dependent Claim 20 under § 103(a) and indicate that this claim is allowable.

WARM As the Base Reference

In the alternative, even if WARM was used as the base reference in a § 103(a) rejection, the prior art of record, and in particular the FRANNSON, HANES, HIBMA and WARM references, still do not provide the proper teachings or suggestions to render any of the pending claims obvious.

For instance, even though WARM appears to teach a variant of an electronic infrared countermeasures system, WARM still does not teach *a conformal mounting adapter* having an aircraft-to-adapter interface and upper adapter side, said aircraft-to-adapter interface configured to conform to the surface of the aircraft; *a mounting structure* having an adapter interface and a mounting side, said adapter interface attached to said upper adapter side;; and a *cover* substantially enclosing said countermeasures system, said cover removably fastened to said mounting side of said mounting structure

Although the Examiner may be inclined to say that such details are obvious in a generalized statement, the Examiner must still provide a proper combination which includes all recited and claimed features/limitations. In particular, the previous discussion of FRANNSON, HANES, HIBMA and WARM reveal that none of the aforementioned references teach or suggest the specific structure features/limitations for housing the IRCM in the manner recited in at least independent Claims 1, 21, 24 and 26.

Therefore, Applicant respectfully submits that a rejection utilizing WARM as a base reference would not be sufficient to render the Applicant's invention, as recited in any of the pending Claims 1, 4, 7-15, 17-21, 24-26 and 28-30.

Newly Submitted Dependent Claims

Applicant submits that new dependent Claims 28-30 are allowable for the reason that they depend from allowable independent Claims 26, 24 and 1 respectively, and because each of these claims recite additional features that further define the present invention.

In particular, Applicant submits that no proper combination of FRANNSON, HANES, HIBMA and WARM, whether considered individually or whether even properly combined, teach or suggest, *inter alia*, said cover having a canoe shape which includes a starboard side surface and port side surface oriented in a longitudinal manner which connect together to form a leading and trailing edge, and a bottom surface with exterior edges connected to lower edges of said starboard side surface and port side surface, said bottom surface extending and connecting to said leading and trailing edge, as is recited in dependent Claims 28 and 29.

Furthermore, Applicant submits that no proper combination of FRANNSON, HANES, HIBMA and WARM, whether considered individually or whether even properly combined, teach or suggest, *inter alia*, said conformal adapter further having a canoe-shaped outer perimeter defined by a pair of opposing pointed terminus ends, the adapter further including a lattice framework design, and a plurality of fastening tabs with holes disposed there through formed about said perimeter of the conformal adapter.

Accordingly, Applicant respectfully requests that the Examiner consider the merits of newly submitted Claims 28-30, and indicate allowance of the same in the next Office Action.

Application is Allowable

Applicant respectfully submits that each and every pending claim of the present invention meets the requirements for patentability and respectfully requests the Examiner to indicate allowance of each and every pending claim of the present invention.

CONCLUSION

Applicant respectfully submits that each and every pending claim of the present application meets the requirements for patentability under 35 U.S.C. §§102 and 103, and respectfully requests that the Examiner indicate the allowance of such claims.

In view of the foregoing, it is submitted that none of the references of record anticipate or render obvious the Applicant's invention as recited in Claims 1, 4, 7-15, 17-21, 24-26 and 28-30. The applied references of record have been discussed and distinguished, while claimed features of the present invention have been pointed out. Further, any amendments to the claims which have been made in this response and which have not been specifically noted to overcome a rejection based upon prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all of the claims therein is respectfully requested and now believed to be appropriate.

If any additional fee is required, please charge Deposit Account Number 19-4330.

Respectfully submitted,

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By:



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